U.S. DEPARTMENT OF HOMELAND SECURITY
U.S. COAST GUARD
CG-4139 (Rev. 6-04)

RADIOBEACON FIELD INTENSITY MEASUREMENT

(Read instructions on page 2 before completing this form)

To: Commander, Coast Guard District (oan)

FROM: (Radiobeacon as listed in Coast Guard List of Lights)

1. RANGE (Miles)	2. SEQUENCE	3. IDENTIFIER	4. OPERATING FREQUENCY	5. MODULATION FREQUENCY

6. REASON FOR SUBMISSION:
☐ FIELD STRENGTH ☐ FUNCTIONAL TEST ☐ OTHER

7. CHART (s) USED FOR MEASUREMENT POINTS SELECTION

8. **FIELD INTENSITY DATA** (Measured with Carrier on-Modulation off)

MEASUREMENT POINTS	BEARING FROM R/B ANT.	DISTANCE IN MILES	FIELD STRENGTH MEASURED AT CHECK POINTS	FIELD STRENGTH NORMALIZED TO PUBLISHED RANGE
			#A uV	#A uV
			#B uV	#B uV
			#A uV	#A uV
			#B uV	#B uV
			#A uV	#A uV
			#B uV	#B uV

9. **FUNCTIONAL TEST CHECK LIST**

	EXCITER #A	EXCITER #B
a. RF Drive	(±10% Initial)	(±10% Initial)
b. DC Current	(±10% Initial)	(±10% Initial)
c. Exciter + 15V	(15 ±.75VDC)	(15 ±.75VDC)
d. Monitor + 15V	(15 ±.75VDC)	(15 ±.75VDC)
e. Unreg Volts	(21 ± 2VDC)	(21 ± 2VDC)
f. AC Volts 01	(42 - 48)	(42 - 48)
g. AC Volts 02	(42 - 48)	(42 - 48)
h. Modulation Freq	Hz(1020±50Hz)	Hz(1020±50Hz)
i. Carrier Freq	KHz(±15Hz of No. 4)	KHz(±15Hz of No. 4)

10. **TRANSMITTER**

a. PA Module	V_1	V_2	V_3	V_4	V_5	V_6	V_7	V_8
B -- (-69 to -75V)	V_9	V_{10}	V_{11}	V_{12}	V_{13}	V_{14}	V_{15}	V_{16}

b. PWR FWD (cw)	W(±20% Initial)	11. **COUPLER**	
c. PWR REV (cw)	W(±20% Initial)	a. PWR FWD (cw)	W(±20% Initial)
d. % MOD	%(70% Radiated)	b. PWR REV (cw)	W(<5% PWR FWD)
e. RF AMPS (cw)	A(±10% Initial)	c. RF AMPS (cw)	A(±10% Initial)

12. **ALARMS**

a. Changeover (No Modulation Exciter #A)	☐ ACCEPTABLE
b. Shutdown (No Modulation Exciter #A or #B)	☐ ACCEPTABLE
c. Changeover (3db Decrease Modulation or Carrier)	☐ ACCEPTABLE

13. REMARKS: (continue on reverse side if necessary)

DATE TAKEN	SIGNATURE, RANK/RATE

Reset

REMARKS: (continued)

INSTRUCTIONS

1. Units supporting radiobeacons will submit field intensity measurements every calendar year (more often if required by local or district instructions). Additionally, a special report will be submitted when changes to the equipment or operating parameters (i.e. frequency or range) are made that may effect field strength. The FUNCTIONAL TEST section of the form will be checked prior to making any field intensity measurements, and recorded after the radiobeacon has been adjusted to the normalized range.

2. Distribute completed forms as follows:
   a. Original to pertinent Radiobeacon Station for posting.
   b. One copy to District Commander (oan).
   c. One copy to the responsible electronic repair facility.
   d. One copy to MLC(t) .

3. Item 1, Range as published in the Coast Guard Light List.
   Item 2, Enter sequence I, II, III, IV, V, VI or continuous.
   Item 3, Enter morse code identifier.
   Item 4, Enter assigned operating frequency.
   Item 5, Enter 1020 unless directed otherwise by Commandant.
   Item 6, Check reason for submission, if other than routine explain in remarks.
   Item 7, Identify the chart or map used to determine distance to field strength measurement point.
   Item 8, Use two or more measurement points for initial submission. Use one point for rechecks. Distance will be in statute miles for the Great Lakes, nautical miles for all others.
   Item 9, Record meter readings. Initial refers to the first field strength reading taken after the original installation or the last change in operating parameters. Investigate all readings outside these limits and comment in the remarks section.
   Item 10, Use V1 & V2 for NX250, V1 thru V4 for NX1000 or V1 thru V16 for NX4000.
   Item 13, Explain all readings out of tolerance and provide additional information as directed by District Commander(s).

Reset